

## PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)	Keung, J.K.	Examiner:	Hai Vo
Serial No.:	09/666,928	Group Art Unit:	6748
Confirmation No.:	6748	Docket:	10188
Filed:	September 21, 2000	Dated:	November 8, 2002
For:	HEAT-SEALABLE MULTI-LAYER WHITE OPAQUE FILM		

Commissioner for Patents  
Washington, DC 20231

DECLARATION UNDER 37 CFR 1.132

Sir;

I, Robert A. Migliorini do hereby declare and state:

1. I am one of the inventors named in the above captioned patent application.
2. I have a bachelors degree in Chemical Engineering from Tufts University and a masters degree in Materials Engineering and a Masters in Business Administration degree from Rochester Institute of Technology. Also, I have taken a number of courses relating to thermoplastic film technology.
3. I have worked in the Films Division of ExxonMobil Chemical Corporation (formerly Mobil Oil Corporation) for more than fifteen (15) years and have held a variety of positions in the research and development and manufacturing groups. For the past three (3) years, I have worked in the manufacturing group and my current title is Plant Manager.

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4. I have extensive knowledge in the development and manufacture of thermoplastic films and the polymeric materials and additives that are used to form such films.
5. The 278WOS-2 film is shown and described in the ExxonMobil Product Characteristics Manual, 4<sup>th</sup> Edition, published in 2000, copies of the relevant pages of which are attached hereto as Exhibit 1. The 278WOS-2 film is currently being marketed by ExxonMobil Chemical Company and is encompassed by the claims of the above-captioned patent application.
6. In accordance with Claim 13 of the above-referenced patent application, the 278WOS-2 film identified in Exhibit 1 has a total polymer thickness of about 1 mil and includes five layers, listed as (i) - (v) as follows:
  - i) a cavitated core layer comprising polypropylene homopolymer of high stereoregularity and a cavitating agent comprising polybutylene terephthalate, said core layer having a first and a second surface;
  - ii) a top tie layer comprising polypropylene and TiO<sub>2</sub>, said top tie layer being positioned adjacent to said first surface of the core layer;
  - iii) a top skin layer comprising polypropylene, SiO<sub>2</sub> and methyl acrylate antistatic agent; said top skin layer being positioned adjacent to said top tie layer;
  - iv) a bottom tie layer comprising polypropylene, said bottom tie layer being positioned adjacent to said second surface of the core layer; and
  - v) a bottom skin layer comprising an ethylene-propylene-butylene terpolymer, further comprises SiO<sub>2</sub>, silicone oil antistatic agent, and crosslinked silicone slip agent; said bottom skin layer being positioned adjacent to said bottom tie layer; and

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wherein the film does not exhibit creep in a Hayssen Vertical Fill, Form and Seal (VFFS) hot tack test at 280-310°F.

7. The 278WOS-2 film identified in Exhibit 1 has been marketed and sold in the United States by ExxonMobil Corporation (or the predecessor Mobil Corporation) since the middle of 1999.
8. In my capacity as Plant Manager, I am aware of the sales activity relating to the film 278WOS-2 identified in Exhibit 1. I am also aware of the sales activity relating to the predecessor 278WOS film sold by ExxonMobil.
9. Sales data relating to the new 278WOS-2 film identified in Exhibit 1 and its predecessor, the 278WOS film, is as follows:

<u>Year</u>	<u>278WOS film Sold (lbs)</u>	<u>278WOS-2 film Sold (lbs)</u>	<u>Total 278WOS film Sold (lbs)</u>	<u>278WOS-2 Percent of Total Sold</u>
1998	4,728,207	0	4,728,207	0.00%
1999	5,533,000	8,000	5,541,000	0.14%
2000	5,385,000	1,118,000	6,503,000	17.19%
2001	3,340,000	2,125,000	5,465,000	38.88%
2002*	2,980,000	3,150,000	6,130,000	51.64%

\*Projected 2002 sales from the first nine (9) months sales.

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10. As evidenced by the sales data set forth in the preceding paragraph, the 278WOS-2 film identified in Exhibit 1 has become an immediate commercial success for ExxonMobil. Prior to the introduction of the 278WOS-2 film, ExxonMobil sold a conventional three layer 278WOS film that was compatible in design to those sold by our competitors. Our best sales year for our conventional three layer 278WOS film was in 1999, when ExxonMobil sold over 5.5 million pounds of this product. Also in 1999, ExxonMobil introduced its 278WOS-2 film and marketed it together with the conventional three layer 278WOS film. ExxonMobil noticed immediate results. Particularly, in the year 2000, the first full year of sales of the 278WOS-2 film, ExxonMobil's sales of this product were equal to over 17% of the total sales of the 278-WOS-2 and the predecessor, 278WOS films. In 2001 sales of the 278WOS-2 film increased by 90% over sales for the prior year. In the following year (i.e., 2002), ExxonMobil's sales are projected to increase another approximately 33% and are therefore expected to exceed the sales of the predecessor 278WOS film. The foregoing sales data represents a significant market penetration for a new product in this field. It is my professional opinion based on my experience with manufacturing and sales of multilayer plastic film products that it is highly unusual to develop such a market size for a new product over the period of time in question.
  
11. From the time of introduction of the 278WOS-2 film through the present, ExxonMobil has continued to manufacture its conventional predecessor film, 278WOS. Thus, it cannot be said that the commercial success of the 278WOS-2 film identified in Exhibit 1 resulted from the phase-out of an old product. Further, to the best of my knowledge, there has been no phase-out of conventional the competitor multilayer plastic films marketed by other companies during this period.

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12. The 278WOS-2 film identified in Exhibit 1 is sold by ExxonMobil at a price comparable to the predecessor 278WOS film, and at a price comparable to the competing multilayer plastic films sold by ExxonMobil's competitors. Thus, the commercial success of the the 278WOS-2 film cannot be contributed to undercutting of competitors' pricing by ExxonMobil.
13. The 278WOS-2 film identified in Exhibit 1 is advertised as part of a line of multilayer plastic film products offered by ExxonMobil. As such, it has not received any excessive or unusual individual advertising with respect to other products in the ExxonMobil line of multilayer plastic films. Moreover, the ExxonMobil multilayer plastic film product line as a whole has not received any excessive or unusual advertising since introduction of the 278WOS-2 film identified in Exhibit 1.
14. There are no special licensing arrangements in place which would have artificially increased the sales volume of the 278WOS-2 film nor has there been any artificial sales of the 278WOS-2 film to affiliated companies.
15. Thus, the commercial success of the 278WOS-2 film identified in Exhibit 1 cannot be contributed to the above-mentioned factors. Further, it is my opinion that the commercial success of the 278WOS-2 film is not due to the size of ExxonMobil's market share or to any other recent changes in the technology.
16. It is therefore my opinion that the commercial success of the 278WOS-2 film is due to the

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particular properties of the 278WOS-2 film. For example, in Exhibit 1 at pages 83 and 89, the tables of Properties show that the Crimp Seal MST (Minimum Seal Temperature) of the 278WOS film measured by Test Procedure 490 is 200°F (93°C), whereas the Crimp Seal MST of the prior art 278WOS-2 film is 180°F (82°C). As stated at page 82, the use of 278WOS film in VFFS applications should be limited to 4-5 ounce (112-140 gram) packages. The 278WOS-2 film has no such limitation and can be used in VFFS applications for packaging of over 16 ounces (450 grams) of product. Thus, the lower Crimp Seal MST of the 278WOS-2 film of the present invention which allows effective package sealing at significantly lower temperatures, permits better sealing, machinability, and packaging of much larger quantities of product.

17. As shown in Exhibit 1 at page 88, the heat seal range of the 278WOS-2 film is approximately 120°F (65°C), as compared to the approximately 100°F (55°C) heat seal range of the predecessor 278WOS film shown on page 82. This greater range of temperature for effective heat sealing of the 278WOS-2 film as compared with the 278WOS film of the prior art allows increased speed of packaging by modern high speed Horizontal Form Fill and Seal (HFFS) and Vertical Form Fill and Seal (VFFS) machinery, leading to higher machine productivity.
18. In the past, the comparable prior art packaging films, such as 278WOS were more limited in the quantity of heat sensitive product that could be effectively packaged using modern high speed machinery, especially in Horizontal Form Fill and Seal (HFFS) and Vertical Form Fill and Seal (VFFS) processes. Thus, the newly introduced 278WOS-2 film

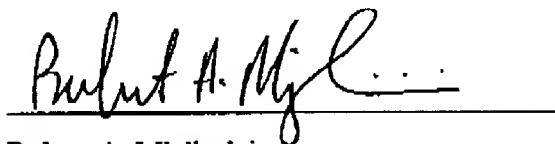
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marketed by ExxonMobil has been able to satisfy a long-felt need in the industry, namely, a film which allows higher speed packaging, and is suitable for VFFS packaging of product weights exceeding 4-5 ounces. In modern HFFS and VFFS machinery and processes, 278WOS-2 exhibits outstanding packaging and machinability performance.

I hereby declare that all statements made herein are of my own knowledge and are true, and that all statements made on information and belief are believed to be true; and further that the statements have been made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such wilful false statements may jeopardize the validity of any patent issuing on the present invention.

Dated: 11/8/02



Robert A. Migliorini

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